

AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title Computer Aided Manufactu		ring						
Course Code	TAM226		Couse Level		Short Cycle (Associate's Degree)			
ECTS Credit 3	Workload	75 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course Using with G and M cods, CAM programs, over the two-dimensional a CNC milling and turning machines, gaining of competence to create t				nal and three ite tool paths	e-dimensional drav s is aimed by this l	wings, for esson.		
Course Content	CNC milling and turning machines, concept of CAD, introduction to CAD, cutting tools, stock defination, part reset and calibration of tools, programming of CNC turning and milling machines.							
Work Placement	N/A							
Planned Learning Activities and Teaching Met		Methods	Explanation	n (Presentat	tion), Demonst	ration, Discu	ussion, Individual S	Study
Name of Lecturer(s)								

Assessment Methods and Criteria

Midterm Examination 1 40	%)
Final Examination 1 70	

Recommended or Required Reading

1	Manufactorig Methods and Technology (AYDIN M., GAVAS M., YAŞAR M., ALTUNPARK Y.)
2	CNC Programming with Mastercam X I-II (Prof. Dr. Muammer NALBANT)
3	Lecture Notes (Megep, Makine Teknolojisi, CAM frezeleme ve tornalama)

Week	Weekly Detailed Cours	se Contents
1	Theoretical	Knowing program interface, importing 2d and 3d cad files. Feedrate and speed calculations.
2	Theoretical	Cutting tools, speed and feedrate calculations. Defining stock parts. Milling options.
3	Theoretical	Face milling.
4	Theoretical	Creating counter tool path.
5	Theoretical	Drilling operations. Creating slot tool paths.
6	Theoretical	Pocket milling. Pool and island operations.
7	Theoretical	Art milling.
8	Intermediate Exam	Midterm exam.
9	Theoretical	High speed face milling.
10	Theoretical	Multi axis milling.
11	Theoretical	introduction to turning, defination of tools and stock, program and bench settings,
12	Theoretical	Rough and finish turning operations.
13	Theoretical	Threading.
14	Theoretical	Drilling, grooving.
15	Theoretical	Drilling, grooving.
16	Theoretical	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	4	2	0	8
Laboratory	5	0	1	5
Midterm Examination	1	2	1	3



Final Examination		1	2	1	3	
			Т	otal Workload (Hours)	75	
			[Total Workload	(Hours) / 25*] = ECTS	3	
25 ho	ur workload is accepted as 1 ECTS					
.earn	ing Outcomes					
1	To be able to gain competence in Comput CAM software.	er aided manufactori	ing for milling. Creatin	g G and M codes manua	Illy and using	
2	To be able to gain cmpetence in computer aided manufactoring for turning. Creating G and M codes manually and using CAM software.					
Progr	amme Outcomes (Agricultural Machinery)					
1	To be able to comprehend social, cultural contemporary issues and developments.	and societal respons	sibility and keep up w	vith national and internati	onal up	
2	To be able to be bounded to the Atatürk nationalism, adopted to the national, ethic, spiritual and cultural value of the Turkish Nation, opened to the universal and modern development, adopted the richness, deep seated and productive properties of the Turkish language, having language sympathy and awareness, having reading pleasure and habit and having sufficient foreign language for their vocational necessities. In the directions of the Atatürk Principles and Revolutions,					
3	To be able to recognize the basic computer hardware and operating systems , knowledge of internet usage being able to prepare documents, electronic tables and presentation by using office programs.					
4	To be able to be aware of ethic responsibility and vocational profession and to have consciousness of a lifelong learning concept					
5	To be able to know current vocational issues and to have skill to define and interprete them.					
6	To be able to be aware of the universal and social dimensional effects in engineering solutions, and to be able to have knowledge about entrepreneurship and newfangleness.					
7	To recognize the materials which used for preparation of agricultural machinery and have skill for the choosing the appropriate material.					
8	To be able to acquire the skill of using the necessary tools and equipments which are used in the production and maintenance of agricultural machinery.					
9	To be able to prepare the agricultural tools and machineries, to determine the breakdowns and to do periodic maintenance and repairs.					
10	To be able to comprehend the picture of the agricultural tools and machinery and their fabrication , and have the skill to draw them via computer.					
11	To be aable to assemble and to combine machinery pieces by using demountable and nondetachable junction methods.					
12	To be able to have the skill of resistance	calculations of the ag	pricultural tool and ma	chinery on computer.		
13	To be able to test and control the suitability of new machines and mechanic equipment to the definite standarts and technical properties.					
14	To be able to have general knowledge of	agricultural production	on.			
15	To be able to have knowledge of basic sci	ences.				

Contribution of Learning Outcomes to Programme Outcomes 1: Very Low, 2: Low, 3: Medium, 4: High, 5: Very High

L1	L2				
1	1				
3	3				
2	2				
3	3				
1	1				
5	5				
1	1				
3	3				
2	2				
1	1				
	L1 1 3 2 3 1 5 1 3 2 2 1				



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